

# Defense General Supply Center

**Last Update:**  
April 2002

## **EPA Region 3**

Virginia  
Chesterfield County  
8 miles south of  
Richmond

**EPA ID#** VA3971520751

**4th** Congressional District

## **Other Names:**

Defense Supply  
Center Richmond  
Richmond Defense  
General Supply  
U.S. Defense General  
Supply Center

## **Current Site Status**

The Defense Supply Center Richmond (DSCR) is in the process of finalizing Proposed Plans and Records of Decision (ROD) for the Area 50 Land Fill soils, Building 68 soils, and Transitory Shelter 202 soils, and an area of soil contaminated with polychlorinated-aeromatic hydrocarbons (PAHs), which are combustion byproducts. In an ongoing effort to address groundwater contamination at DSCR, options are being explored to expand an existing groundwater treatment system which had been operating as an interim remedy for the groundwater associated with the former Area 50 Land Fill. A pilot scale dual-phase extraction system continues to effectively treat the groundwater associated with the Acid Neutralization Pits. Currently, analytical data is being evaluated to further characterize the nature

and extent of the groundwater contamination and to determine the necessary parameters for the expansion of the pilot study system to serve effectively as the final remedy. Innovative treatment technologies have been evaluated for the treatment of the groundwater associated with the Former Fire Training Area. Currently, the option of monitored natural attenuation (natural breakdown) is being considered as one of the most viable treatment alternatives for the groundwater associated with the Fire Training area. Another recent development is formation of a Restoration Advisory Board (RAB) to provide citizen input into the cleanup process.

## **Site Description**

Defense Supply Center Richmond is a federal facility site located in Chesterfield County, Virginia, about eight miles south of Richmond. The site consists of approximately 640 acres that have been used as a Defense Logistics Agency supply center since 1941. Past operations conducted on site include parachute manufacturing and repair, mess kit/canteen repair, and refrigerator repair. Current industrial operations include refurbishing helmets and steel compressed gas cylinders using dry (ball blasting) processes and tent fabrication, and repair. Chemical operations at the site have included storing and shipping flammable, toxic, corrosive, and oxidizer chemicals as well as pesticides. In the 1960s and early 1970s, DSCR disposed of some of their waste material in a shallow ravine called the Area 50 Landfill. In the 1980s, groundwater contaminated primarily with volatile organic compounds (VOCs) was detected downgradient of the landfill, and the site was placed on the National Priorities List of most hazardous waste sites.

Off-site residents are primarily served by a Chesterfield County-operated water supply system, although a few private home water supply wells remain in use in the locale. These are not in locations where a contaminated plume of groundwater has been detected.

### **Site Responsibility**

This site is being addressed through Federal actions.

### **NPL Listing History**

This site was proposed to the National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites

requiring long-term remedial action on October 15, 1984. The site was formally added to the list July 22, 1987.

## **Threats and Contaminants**

Groundwater is contaminated with volatile organic compounds (VOCs) such as chloroform, polycyclic aromatic hydrocarbons (PAHs), and chromium from former chemical wastes disposal practices. Sediments are contaminated with pesticides. The soil contains VOCs and pesticides, and the surface water on site is contaminated with metals and pesticides. Those who accidentally ingest or come in direct contact with contaminated groundwater, surface water, soil, or sediments may be at risk. In addition, recreational use of contaminated streams and water may pose a threat.

## **Cleanup Progress**

Under the Federal Facility Agreement for this site, the cleanup has been divided into several different parts. Two records of decision (RODs) were signed in 1992; the Open Storage Area was recently evaluated for its first Five-Year Review, and work at the Acid Neutralization Pits was completed in December 1994. Notices of Intent to Delete (NOIDs) for the open storage area and the acid neutralization pits are currently being reviewed by EPA.

In December 1996, a groundwater treatment system was installed to clean the groundwater. This system includes 17 upper aquifer and five lower aquifer extraction wells, a collection system, and a 100 gallon-per-minute air stripping groundwater treatment plant with air emission controls. Through the end of December 1998, 21.9 million gallons of groundwater have been treated, and all effluent discharge limits have generally been met. In addition to treating the groundwater, the system continues to pull back the contaminated groundwater from the off-site Bell Wood Properties. This successful operation is illustrated by the 96 percent reduction in contamination levels since the start of the system, and a 9 percent reduction since the end of 1997.

In early 1997, a hot spot of contaminated soil was excavated in the

National Guard Area. The ROD for this area stipulated that institutional controls would be employed as the remedy, but it also required the removal of approximately 100 cubic yards of moderately contaminated soil from a small area of the site. The excavation has been completed and the site is stabilized. Confirmatory testing indicates this site can be closed out.

In July 1998, a one-year pilot study of the treatment of groundwater and soils was completed. This new dual phase extraction technology has been successful, reducing the estimated site remediation time by 75 percent. After reviewing analytical data obtained during post-pilot study completion sampling efforts, it was determined that the system should be expanded and continue operating as a final remedy for the site. This technology is also currently being incorporated into a final remedy for the aforementioned groundwater treatment system.

In December 1998 an additional pilot study was implemented utilizing a technology known as density driven convection to treat groundwater contamination resulting from activities at the Former Fire Training Area. This technology is designed to remove contaminants from the groundwater without extracting the water from the aquifer. Analytical results of this study are not yet available; however, it is likely that this technology will provide another viable option for treating the groundwater at the site.

In July 1999, a ROD for the soils associated with the Fire Training Area was signed. Although there was evidence of contamination at this site, based on current risk assessment data, the soils at this site and the water/sediment in Kingsland Creek were determined to pose no significant risk to human health or the environment.

## **Contacts**

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The detailed Administrative Record can be examined at the following location:

Chesterfield Public Library

9501 Lori Road

Chesterfield, VA 23832